

The Office of Technology Management

UNIVERSITY OF TEXAS  ARLINGTON

Tech ID: UTA 15-44

Wearable Gesture Interface

INVENTOR: Oguz Yetkin

TECHNOLOGY NEED

There is currently a growing demand for gesture based interfaces for use in gaming, controlling Bluetooth headsets, virtual/augmented reality devices, as well as emerging wearables such as Google Glass™. Such devices are also useful in environments where touching an interface is undesirable, such as sterilized laboratory or operating room environments. While glove-based systems such as the BearTek™ glove and camera-based systems such as the LeapMotion™ controller exist, these devices either require the hand to be visible to the device or for the user to wear a cumbersome glove.

INVENTION DESCRIPTION/SOLUTION

UTA researchers have developed and prototyped a gesture interface based on lightweight fingernail mounted devices. These devices do not require gloves to be worn and do not obstruct the finger pads or any other portion of the hand. The devices can send pre-set commands to any device and are actuated by the user touching different fingers together. The system also includes a mechanism to suppress unwanted gestures. The solution has been demonstrated for controlling a robotic prosthetic hand using the intact hand of the amputee.

APPLICATIONS

- Ubiquitous/Wearable computing
- Virtual reality and gaming
- Remote control of devices
- Prosthetic device control

KEY BENEFITS

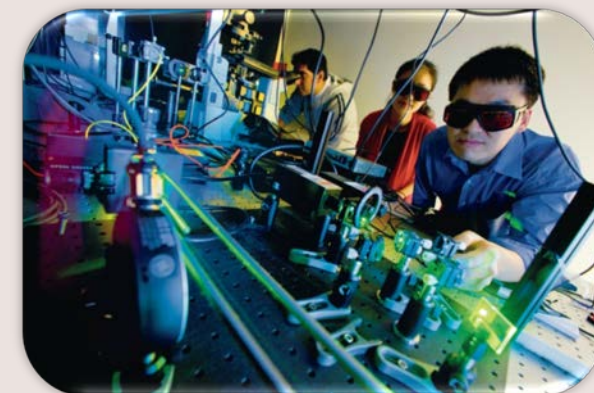
- Enables intuitive control of devices which lack a touch screen interface
- Complements existing interfaces in gaming/VR environments
- Enables augmented reality devices to be operated discreetly

STAGE OF DEVELOPMENT

Prototyped and tested

INTELLECTUAL PROPERTY STATUS

Provisional



Contact information

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